BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of Work: Estimate for Drilling of Borewells Providing Pump Motor and Accessories and Pipelines in ward No. 11 (Kuvempunagara) Vidyaranyapura Sub Division.

	011-18-000044	P-1802					Estimate Cost Rs.	2500000.00	
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction **(P.48, I. 9.4) PRED.SR 2012-13**	Each BW							
			2				**2**	2065.00	**4130.00**
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) **P. 46 / I. 9.1 PRED SR 2012-13**	Rmtr							
	0 to 50 m		2	50.00			**100.00**	315.18	**31518.00**
	50 to 100 m		2	50.00			**100.00**	412.00	**41200.00**
	100 to 150 m		2	50.00			**100.00**	458.35	**45835.00**
	150 to 200 m		2	50.00			**100.00**	484.10	**48410.00**
	200 to 250 m		2	50.00			**100.00**	560.32	**56032.00**
	250 to 300 m		2	50.00			**100.00**	600.49	**60049.00**
3	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty **P. iii, I No. 84 PRED SR 2012-13**	Rmtr							
			2	60.00			**120.00**	1325.00	**159000.00**
4	Providing 250mm dia PVC Pipe 6kg/cm **BWSSB SR 2014-15 Page No. 53, Item No. 1(ii)**	Rmtr							
			2	12.00			**24.00**	1100.00	**26400.00**
5	Providing and fixing 160mm Borewell Cap **P. iii, I No. 85**	Each							
			2				**2**	100.00	**200.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
6	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps **PWD SR 2016-17 P. XXXXII Item No. 30 including of all taxes**	No							
	12.50 HP 25 Stage,		2				**2**	60400.00	**120800.00**
7	KSRB 13.3.6: Providing and fixing in trenches galvanised / mild steel tubes (medium grade) **50mm** dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour, charges HOM of equipments complete as per specifications. Specification No. KBS 13.2.14 /13.6 **Page No. 90 / Item No. 13.15 / PWD SR 2016-17**	M							
			2	260.00			**520.00**	457.92	**238118.00**
	Basic Rate	432.00							
	Area Weightage @ 6%	25.92							
	Total	**457.92**							
8	Heavy Duty Collar 50 mm dia	Nos	86				**86**	144.30	**12410.00**
9	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of **GROUP-A. P. No. 12 / I No. 2.10.4(1) 3C x 6 Sqm mm KPWD Electrical SR 2014-15**	Mtr							
			2x2	270.00			**1080.00**	188.70	**203796.00**
10	Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) **Page No. 558, Items No-3 BWSSB SR for 2014-15)**	Per Length							
	(280/6)=47.00		2	45.00			**90**	88.00	**7920.00**
11	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., **P No. 44 / I No. 6.6.6 KPWD Electrical SR 2014-15**	Each							
			2				**2**	302.00	**604.00**

Sl No	Description of Item								
12	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A **P No. 55/ I No. 7.4.4 4 core 16 Sqmm KPWD Electrical SR 2014-15**	Mtr	2	30.00			**60.00**	140.40	**8424.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. **P No. 61 / I No. 7.8.1 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15**	Mtr	2	30.00			**60.00**	10.80	**648.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) **P No. 61 / I. No. 7.9.3 KPWD Electrical SR 2014-15**	Mtr	2	25.00			**50.00**	85.00	**4250.00**
	For Cutting Road Surface								
15	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV **P. No. 62 / I No. 7.12.1 KPWD Electrical SR 2014-15**	Mtr	2	4.00			**8.00**	345.00	**2760.00**
	40mm dia GI pipe								
16	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., **P. No. 62 / I.No. 7.13.2 KPWD Electrical SR 2014-15**	No.	2				**2.00**	280.00	**560.00**
	16Sqmm								
17	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia, **(P No. 55, I No. 7.1) KPWD Electrical SR 2014-15**	No	2				**2**	2727.00	**5454.00**
18	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.**P No. 44 / I No. 6.7.2 KPWD Electrical SR 2014-15**	No.	2x6				**12**	180.00	**2160.00**
	32 Amps								
19	KSRB13-7.1-4 : Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.10 / 13.13 **Page No. 93, Item No. 13.55, PWD SR 2016-17**	Nos	2				**2**	1585.76	**3172.00**
	Basic Rate	1496.00							
	Area Weightage @ 6%	89.76							
	Total	**1585.76**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
20	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per rections including cost of materials, fixtures and conveyance to work spot etc., complete.- **for 50mm dia: Page No. 95 , Item No. 13.81.3 PWD SR 2016-17**	Each							
	50mm dia		2				**2**	227.90	**456.00**
	Basic Rate	215.00							
	Area Weightage @ 6%	12.90							
	Total	**227.90**							
21	Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete **P. XXXVII PWD SR 2016-17**	No							
			2	4.00			**8**	104.30	**834.00**
22	Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications **P. 54, Item No. 6.13 KPWD SR 2014-15**	No							
			2				**2**	1486.00	**2972.00**
23	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. **5-32Amps Group A TPN P No. 47 / I No.6.16.5 KPWD SR 2014-15**	No							
			2				**2**	415.00	**830.00**
24	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete **P.No. 57, I. No. 6.41.2 KPWD Electrical SR 2014-15**	Sq.Cm							
	16SWG		2x2	120.00	60.00		28800.00		
			2	360.00	25.00		18000.00		
							46800.00	0.33	**15444.00**
25	Supplying fully automatic store detta starter unit push button type with suitable wires three contractors one adjustable termal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts 3pase and wired offter fixing to the wooden board for motor **Above 15 HP upto 25 HP (KPWD electrical SR for 2014-15 Page No. 44 Item No. 6.2.2)**	No.							
			2				**2**	8273.00	**16546.00**
26	KSRRB M200-12.2 : Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T & P and scaffolding wherever necessary, sorting the dismantled materials, disposal of unserviceable material and stacking the serviceable material with all lifts and lead and lead of 10000 meters complete as per specifications. lime/cement concrete, I.by manual means B. cement concrete grade M-15 & M-20. **No. 136 / Item No. 18.18 / PWD SR 2016-17**	Cum							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			2	335.00	0.60	0.15	60.30		
							60.30	375.24	**22627.00**
	Basic Rate	354.00							
	Area Weightage @ 6%	21.24							
	Total	**375.24**							
27	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strructure manhole. **Page No. 01/ Item No.1.2.2 / PRED SR 2012-13 Hard Soil**	Cum							
			2	335.00	0.60	0.45	180.90		
	Basic Rate	188.00					**180.90**	188.00	**34009.00**
28	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., **Page No.15 item No.3.4.2 b PRED SR 2012-13.**	Rmtr							
	75 mm dia 6 KSC PVC pipe		2	335.00			670.00		
							670.00	157.00	**105190.00**
	Basic Rate	157.00							
29	KSRRB M2100-9. Sand Filling in Foundation Trenches as per Drawing & Technical SpecificationMORTH Specification No. 304 **Item No. 27.17 Page No. 217, PWD SR 2016-17**	Cum							
			2	335.00	0.60	0.30	120.60		
	Basic Rate	2757.00					**120.60**	2922.42	**352444.00**
	Area Weightage @ 6%	165.42							
	Total	**2922.42**							
30	KSRB 2-4 : **Refilling available earth** around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. **Page No. 5 / Item No. 2.11 of PWD SR 2016-17**	Cum							
			Qty. Vide Item No. 27-29				**60.30**	80.56	**4858.00**
	Basic Rate	76.00							
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
31	KSRB 4-1.3 : Providing and laying in position plain cement concrete of **mix 1:4:8 with OPC cement @ 180 kgs with 40mm** and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregares @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. **No. 12 / Item No. 4.3 / PWD SR 2016-17**	Cum							
			2	335.00	0.60	0.15	60.30		
	Basic Rate	4867.00					**60.30**	5159.02	**311089.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							

Sl No	Description of item	Unit	No						
32	Providing and laying cement concrete using 20mm and down size granite jelly of ready mixed concrete RMC)for R.C.C works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, form works and scaffoldings to withstand pumping of concrete, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) Ready mixed Cement concrete M-20 (1:1.5:3) for raft foundation, column footing, main and secondary beams. **Page No. 18 / Item No. 4.48 / PWD SR 2016-17**	Cum	2	335.00	0.60	0.10	40.20		
							40.20	6231.74	**250516.00**
	Basic Rate	5879.00							
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
33	KSRB13-6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.6 / 13.3. (**P.No.92/ I.No. 13.37 of CSR 2016-17**)	Each	12				**12**	2175.12	**26101.00**
	Basic Rate	2052.00							
	Area Weightage @ 6%	123.12							
	Total	**2175.12**							
									2227766.00
	Sub Total								**222777.00**
	KRIDL Charges @ 10%								**22278.00**
	Labour Cess @ 1%								**25000.00**
	BESCOM Deposit for Borewell	L/S	2	12500.00					**2179.00**
	Miscellaneous and Unforeseen Charges	L/S						Total	**2500000.00**

Rupees Twenty Five Lakh(s) Only

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD 2016-17, PWD Elecrical 2014-15, PRED 2012-13 & SE-RDED approved Rate.
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Twenty Five lakhs only
Head of A/c. P-1802
Div. Ref. No. ..... Date. 13/03/18
TA CE(YNK)

Technical Sanction
Accorded For 25.00 lakh Rs.
Head of A/C P1802
CER NO 841 Dt: 13.3.18
TA CE (YNK)